Work Order l July-23-13, 1:05:58			B 1 0 5 0 5 9	*105	ก59*		*			,	Page 1
To the Control of the	201-1		. F	Accept	*N900	040	100)* s	etup Sta	*N	S1*
Revision ID: Item Name: Dou	ıbler	36				•			Sto	• *N	S2*
Start Date: 7/2 Required Date: 7/2 Reference:	Start Qty 3/13 Req'd Qty		*24* *24*		Cust Item Customer:		·		0.		:
Approvals: Pr	ocess Plan:M_T	5	Date: \3-67-24	Tooling:		Date:		R	tun Sta	1/1	R1*
-1-	C:		Date:	SPC (Y/N):	E	Date:			Sto	*N	R2*
Sequence ID/ Work Center ID	Operation Descriptio			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr										
D3201	Rev B										
¹00 *∤∩∩*	FLOW WAT	ER JET		0.00				36			Ae
Waterjet		Memo		0.00				_	_		13.11.
FLOW CNC Waterjet		I-Cut as per Deburr if nec		Prog Rev:	2-						
110	QC2- Inspec	parts off ma	achine FAI/FAIB	0.00				. .			,
110 QC Quality Control	:	Memo		0.00				36	_0_		13.11.
120	QC8- Inspec	t parts - seco	and check	0.00 27	*						
120	QUU Mispee			9-69	_			36,			
QC Quality Control		Memo		131 nla	7		(Low			

											- \ -
									DQA:	Date:	
NCR: Yes	/ No				WORK ORDER NON-C	CONFORM	MANCE / UP		QA Closed:	Date:	
Work Order:					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No.					Rework Scrap Use-as-is Work Order Update	Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					ption of work order update	Initial		tion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	<u> </u>					1					
Equip/Tooling							1				

Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Bend Pressure/Forced Grain Ovalized Bending BOM/Route Over/Under tolerance Centre Not Concentric to O/S Temperature/Cure Hardware Broken/Damaged Inspection Incomplete Cracks Part Incorrect Weld Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Contamination Maintenance Part Moved Countersink Positioned Wrong Heat Treat Mislabeled Other Inspection Strip in Tube Power Loss/Surge Cut Too Short Misread Drill Holes Ripples in Bend Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Folio Wave/Twist in Tube Outside Dimensions

Operator Material Setup

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde July-23-13 1:05:		105059		*	1050	159*						Page 2
Revision ID:	D3201-1			Accept		*N900	040	100)* s	Stop	171.	S1*
	7/23/13 7/23/13	Start Qty: 24.00 Req'd Qty: 24.00	*24* *24*			Cust Item I Customer:	ID:					
Approvals:		s Plan:	Date:	Tooling:			ate:		F	Run Star Stop	171	R1* R2*
Sequence ID/ Work Center ID 130 *120* Small Fab Small Fab	•	Operation Description Small Fab Memo Deburr Stack		Set U Run 1 0.00	Pp/ Hours	Tool ID DAS 27 9-89	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
*140 *140* HandFinish Hand Finishing		Chemical Conversion Coa Memo	at per QSI005 4.1	0.00					36	VÆ	<u> </u>	1/2
150 *150* QC Quality Control		QC3/Inspect Part Finish Memo		0.00	54 12/1/12	0		Ć	36 ces J			·

DQA:	Date:	
·		

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

TOTAL TO					TOTAL ORDER HOW			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		QA Closed:	Dat	e:		
Work Order	r:				DISPOSITION			AGAINS	T DE	PARTMENT	PROCESS			
Part No					Rework Scrap		N	Skid-tube Crosstube Machining Small Fal	۰	i	Water Jet d. Eng. Coor.		Engineering Quality	
NCR No	0				Use-as-is Work Order Update] Th		oforming Finishing Large Fab Composite	_	Rec/Stor	e/Packaging Supplier		Other	
Root				Descri	ption of work order update	Initia	al	Action		Sign &				
Cause	Date	Step	Qty	C	or Non-conformance	Chief I	Eng	Description		Date	Verification	,	QC Inspector	
Doc/Data														١
quip/Tooling												1		
Operator							l					İ		
Material					' .							- 1		
Setup					. •									
Other			1		•			•						
Process												l		
Supplier														
Training														
Jnapproved														
					F	AULT C	ATEC	GORY						
Landin	g Gear				General						_			
	Bending				Bend	Gra	ain			Ovalized		Pr	essure/Forced	
	Centre No	ot Concer	ntric to C	o/s	BOM/Route	Har	dwa	re		Over/Under	tolerance	Te	emperature/Cure	
	Cracks				Broken/Damaged	Insp	pecti	on Incomplete		Part Incorred	ct [w	/eld	
	Crushed/	Crimped			Burrs	inst	tructi	ions Incomplete/Unclear		Part Lost/Mi	ssing	w	rong Stock Pulled	
	Cuffs				Contamination	Ma	inte	nance	Г	Part Moved	_			
Γ	Heat Trea	at			Countersink	Mis	slabe	led		Positioned V	Vrong			
Γ	Inspection	n Strip in	Tube		Cut Too Short	Mis	read			Power Loss/	Surge		ther	
Ī	Ripples in	Bend			Drill Holes	Off	set			•		······································		•
Ţ	Torque W	/aves in E	xtrusion	,	Drawing	Out	t of C	Calibration						•
	Turning S	equence			Finish	Out	t of S	equence						•
Γ	Wave/Tw	ist in Tub	ре		Folio	Out	tside	Dimensions						•

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Work Orde		05059		*10!	5059*							Page 3
Item ID: Revision ID: Item Name:	D3201-1 Doubler		A	ccept	*N900	040	100)* :	Setup	Start Stop	*N:	S1*
Start Date: Required Date: Reference:	7/23/13	Start Qty: 24.00 Req'd Qty: 24.00	*24* *24*		Cust Item II Customer:	D:					ı VI	
Approvals:	Process Pl	an:	Date:	Tooling: SPC (Y/N):		nte:		1	Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center I 160 *160* Packaging Packaging	D	Operation Description Identify as per dwg & Sto	ck Location: <u>STC</u> ろろ	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Qty	y Dana	Reject Number <u> </u> 3-//	Insp. Stamp
170 *170* QC Quality Control		QC21- Final Inspection - Memo	Work Order Release	0.00					<u> </u>	3/1	1/29 Mu 13	S-11-28

											DQA:	Date:	
NCR:	/es	/ No				WORK ORDER NON-	COI	NFORN	MANCE / UP	DATE	QA Closed:	 Date:	
Marie Onde						DISPOSITION				AGAINST DE			
Work Orde Part I	۔ ۔ No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining oforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root	- -				Descri	ption of work order update	_ 	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance		ief Eng		ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
							AUI	LT CATE	GORY				
Landi		Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio	Crimped at		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		4	on Incomplete ions Incomplete/ nance led	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1	1	mobectio	u anih ili	IUDE	i	fear 100 billion	1	Invital CON	•	1	Trower ross/	Jui BC	Potitici

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

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Picklist Print

July-23-13 1:05:57 PM

Work Order ID:

105059

Parent Item:

D3201-1

Parent Item Name:

Doubler

Start Date: 7/23/13

Required Date: 7/23/13

Start Qty: 24.00

Required Qty: 24.00

Comments:

IPP Rev:A

Removed from 9 Digit 06-01-25 JLM

Comments.	IPP Rev:B	on Waterjet	06-08-										
Component Item ID/ Item Name	Replacem Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.040 2024-T3 .040 sheet		Purchased	No			100	sf	317.5877	0.276	- 6.9726312	Au	13	11-26
				Location		Loc Qty	Lo	oc Code					
				MAT022		317.5876922							
				120	605	65.8254832				<u>.</u>			
				121	197	57.187894							
				122	136	31.78							
				123	217	20.094315							
				124	987	142.7							

M127582 -- 10,45

							•				DQA:	Dat	te:	
NCR: Y	'es	/ No				WORK ORDER NON-C	10:	NFORM	AANCE / UPDATE		·		•	
					·						QA Closed:	Dat	œ:	
Work Orde	۳.					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		
Work Orde	-				· · ·	Rework	1		Skid-tube Crosstube		1	Water Jet	\neg	Engineering
Part N	lo.					Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.	\exists	Quality
	•					Use-as-is		i	noforming Finishing	_	4	e/Packaging	\exists	Other
NCR N	lo.					Work Order Update	1		Large Fab Composite	-	1	Supplier	-	
	•									_			_	
Root					1	ption of work order update		Initial	Action		Sign &		ļ	
Cause	_	Date	Step	Qty	<u> </u>	or Non-conformance	Ch	ief Eng	Description		Date	Verification	긔	QC Inspector
Doc/Data														
Equip/Tooling												i		
Operator	\Box					•							- 1	
Material				Ì										
Setup							l							
Other														
Process				:										
Supplier														
Training					: '									
Unapproved														
						F.	AUI	LT CATE	GORY					
Landi	ng G	Gear				General	_	_		_	-			
		Bending				Bend	L	Grain	•	L	Ovalized			Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	_BOM/Route	L	Hardwa	re	L	Over/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged	L	Inspect	on Incomplete		Part Incorred	ct		Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/Unclear		Part Lost/Mi	ssing		Wrong Stock Pulled
		Cuffs			Γ	Contamination		Mainte	enance		Part Moved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

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DART AEROSPACE LTD	Work Order:	105059
Description: Doubler	Part Number:	D3201-1
Inspection Dwg: D3201 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Х	First Article	,	Prototype
			,

Drawing	Tolerance	Actual	Accept	Reject	Method of	Comments	
Dimension	Tolerance	Dimension	Accept	Reject	Inspection	Comments	
R0.50	+/-0.030	,50	<u> </u>		86		
3.57	+/-0.030	3.57	_		V	JEM OI LOSB	1-19
R0.12	+/-0.030	10			RG		
8.00	+/-0.030	8.00			T	JKmob	
0.58	+/-0.030	,58	~~-		V		
4.89	+/-0.030	4.89			V		
R0.25	+/-0.030	.25	-		86		
0.040	+/-0.010	.039	-		V		
41.6							1
		-		-			
			-				
			700				

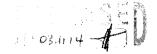
Measured by: A	Audited by:	9-69	Prototype Approval:	N/A
Date: 13.11.26	Date:	13/11/27	Date:	N/A

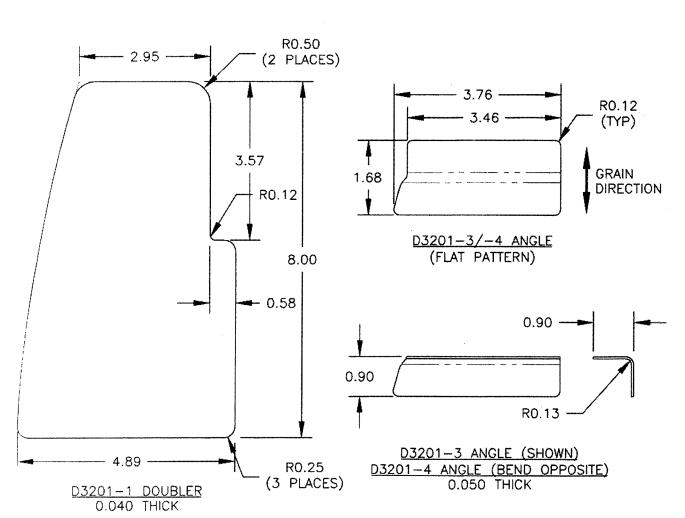
Rev	Date	Change		Revised,by	Approved
Α	03.11.28	New Issue	P/O D412-698-015	KJ/RF	





DESIGN DRAWN BY		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
CHEC	(ED _A)	APPROVED,	DRAWING NO. R	EV. B		
	-#-	1	D3201 SHEET 1	OF 1		
DATE			TITLE	SCALE		
03.11.03			DOUBLER	1:2		
Α		03.08.07	NEW ISSUE			
В		03.11.03	MODIFY D3201-1, ADD D3201-3/-4			





D3201-1/-3/-4 DOUBLER

- 1) MACHINE PARTS PER DWG FILE "D3201-B1.DWG"
- 2) MATERIAL: 2024-T3 ALUMINUM SHEET (QQ-A-250/4) (REF. DART SPEC M2024T3S)
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES

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